USER MANUAL

34SL AND 34SH SERIES

UNI-RAM CORPORATION • ONTARIO • CANADA

NOTE: APPEARANCE MAY NOT BE EXACTLY AS SHOWN

Revision 2013-05

INTRODUCTION

Uni-ram holds many patents on designs used in its innovative products. Every machine is tested for compliance with Quality Assurance standards. Follow the instructions on preparation, use and operation to operate this machine safely and effectively. Ensure that this manual is readily available to the operator at all times. If you have any questions about the operation of this machine, contact:

North America:
Uni-ram Technical Service
1-800-417- 9133
Other Continents:
Contact Your Supplier

CAUTIONS AND WARNINGS

- The operator should wear protective clothing in accordance with local safety and environmental regulations, with a minimum of face goggles and gloves along with an apron and respirator if required.
- Always turn off the power supply before performing maintenance.
- DO NOT SMOKE OR USE THIS EQUIPMENT NEAR A POTENTIAL SOURCE OF IGNITION SUCH AS SPARKS OR AN OPEN FLAME. This unit must be located at least 6 feet (1.8 m) from all potential sources of ignition including electrical receptacles, switches, pilot lights, fixtures and contacts when installed in a non - hazardous locations.
- The ambient temperature must be between 5°C (41°F) to 35°C (95°F).
- DO NOT RECYCLE NITROCELLULOSE WHICH IS EXTREMELY VOLATILE. IT AUTOMATICALLY IGNITES AT 135°C TO 166°C (275°F TO 330°F).
- Do not install, operate or maintain this equipment where the auto ignition temperature of the hazardous atmosphere(s) is lower than 260°C (500°F).
- This equipment is designed to be used with combustible solvent. Do not use flammable or explosive solvents in this equipment.
- Units must be installed by a qualified electrician and according to applicable laws.

FEATURES AND SPECIFICATIONS

All Uni-ram Solvent Recyclers feature **rapid-start** direct electric heating of solvent and a **short cool-down time** due to high-efficiency condensers and air cooling with a motor driven fan.

SAFETY FEATURES

- This unit is certified under UL standard 2208 and CSA standards C22.2 No. 30 and No. 88 for use in non-hazardous locations as well as for use in hazardous locations Class 1, Division 1 and Class 1, Division 2, Group D-T2C.
- **Explosion proof construction** and intrinsically safe electric circuitry.
- **Computer controlled** with many built-in safety programs including temperature control of all critical points including tank, condenser and fan motor.
- **Self Diagnostic** error messages are displayed on the Display Panel.
- **Dual lid** cover system with a built-in pressure relief function.

SPECIFICATIONS						
MODEL	**34SL-37**	**34SH-37**	**34SL-42**	**34SH-42**	**34SL-55**	**34SH-55**
VOLTAGE (V)	**110-120V**	**200-240V**	**110-120V**	**200-240V**	**110-120V**	**200-240V**
RECOMMENDED CIRCUIT AMPS	**20A**	**10A**	**20A**	**10A**	**20A**	**10A**
MAX TEMPERATURE SET POINT	**240°C**	**240°C**	**240°C**	**240°C**	**240°C**	**240°C**
SINK SIZE (W X D X H)	**37 x 28 x 8 in 94 x 71 x 20 cm**	**37 x 28 x 8 in 94 x 71 x 20 cm**	**42 x 30 x 8 in 107 x 76 x 20 cm**	**42 x 30 x 8 in 107 x 76 x 20 cm**	**55 x 30 x 8 in 140 x 76 x 20 cm**	**55 x 30 x 8 in 140 x 76 x 20 cm**
SHIPPING DIMENSIONS (WDH)	**40 x 48 x 50 in 102 x 122 x 127 cm**	**40 x 48 x 50 in 102 x 122 x 127 cm**	**40 x 48 x 50 in 102 x 122 x 127 cm**	**40 x 48 x 50 in 102 x 122 x 127 cm**	**40 x 62 x 50 in 102 x 158 x 127 cm**	**40 x 62 x 50 in 102 x 158 x 127 cm**
WEIGHT	**420 lb 191 kg**	**420 lb 191 kg**	**450 lb 205 kg**	**450 lb 205 kg**	**460 lb 209 kg**	**460 lb 209 kg**

SOLVENT REQUIREMENTS

Dirty solvent to be distilled must meet **each requirement** described below. Be sure to read the MSDS (Material Solvent Data Sheet) on the properties of the pure solvent to be recyled.

- The BP (Boiling Point) of the dirty solvent must be less than 220°C (428°F). BP increases with greater contamination. **Note:** Recycle recently contaminated solvent only. Standing solvent can become acidic over time.
- The flash point of the solvent to be distilled must be higher than 40°C (105°F) for safe operation.

Recommended solvent:

Parts cleaning solvents with a Flash Point of 105°C.

DEFINITIONS

Flash Point:
The lowest temperature at which the vapor of a solvent can be made to ignite momentarily in air.

Auto-ignition temperature (often referred to as “ignition temperature” or “ignition point”):
The temperature at which solvent ignites by itself.

DELIVERY INSPECTION

- Inspect the shipping carton for any sign of transport damage. Carefully remove the unit from the shipping carton and check the unit for damage. Report any transport damage immediately to the carrier and your vendor. Initiate a freight claim with the carrier. The manufacturer is not responsible for freight damage.
- Check for the parts listed and/or shown below. If any parts are missing, contact your supplier. Additional consumables and accessories are also listed.
- Level the unit using the adjustable feet and install the Door Handle (included in the ACCESSORY KIT).

Included Parts

Manual
Lid Gasket (spare)

LOCATION

This unit is certified for use in non-hazardous and hazardous locations
Class 1, Division 1 Group D and Class 1, Division 2, Group D.

- **Non-hazardous Locations:**
  If using a plug rated for non-hazardous locations, the unit must be located outside of a hazardous location. In such a location, we recommend that the receptacle be located a minimum of 6 feet from the unit and a minimum of 3 feet from the floor. We also recommend that the unit be located at least 6 feet from any source of spark, ignition or high temperature such as electrical receptacles, switches, pilot lights, fixtures etc. **To clarify the definition of an appropriate location, contact your local authority. This unit must be connected to the power supply only by a qualified electrician in accordance with an appropriate Electrical Code.**

- **Hazardous Location:**
  In hazardous locations (Class 1, Division 1, Group D and Class 1, Division 2, Group D), the power cord must be connected to the main power supply only by a qualified electrician, in accordance with the National Electrical Code. This equipment must be properly connected to an explosion proof outlet (receptacle or hard wired).

Select a Location That Meets EACH AND EVERY Requirement, Described Below.

1) Comply with the instructions in the section: CAUTIONS AND WARNINGS.

2) There must be enough space around the unit for good air circulation and for the sink lid to open fully. The cord must be connected directly to the main power supply; an extension cord cannot be used.

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SETUP AND CONNECTIONS

Note: the unit is designed to become inoperable if certain setup procedures are not followed.

1. CONNECT THE AIR SUPPLY

This unit is equipped with air operated components including 3 Dual Diaphragm pumps, 4 solenoid valves and a pneumatic drain ball valve. These components require a supply of clean, dry air (a Moisture Filter is included and must be installed). An air supply of at least 85 PSI (6 kg/cm$^{2)}$ and 115 L/MIN is required for proper functioning. **WARNING: A PRESSURE REGULATOR IS PRE-INSTALLED. BYPASSING OR REMOVING THE REGULATOR COULD RESULT IN THE USE OF AIR PRESSURE HIGHER THAN 85 PSI (6 KG/CM^2). THIS COULD DAMAGE THE PUMPS AND VOID THE WARRANTY.**

Apply teflon tape to the Air Inlet Fitting (1/4" NPT Female Threads) and connect the Moisture Filter to it. Connect the air supply to the Filter. Make sure that there are no leakages at the connections. Also make sure that the air is free of dust, rust and other contaminants. Drain the Moisture Filter before each recycling.

2. CONNECT THE ELECTRICAL POWER

Connect the unit to a dedicated branch circuit using one of the methods described in the Location section. Make sure the correct voltage and amperage are supplied to the unit. Refer to the table on page 4.

On first power up the Display Panel shows "NEW UNIT SET-UP". After supplying the new solvent to the unit and when the unit is ready to begin a new cycle, the Display Panel shows:

READY SP =240°C
START IN 2H OM

Note: changes to the unit's operating parameters should only be made when the unit is in this "READY" mode (see OPERATION section), (SP = Set Point).

6. INITIAL SETUP (PREPARATION FOR PARTS CLEANING)

- Remove the front door and notice the location of the Duty Tank and the Clean Tank (see page 5).
- **THE DISPLAY PANEL SHOULD BE READING "NEW UNIT SET-UP" (FIRST POWER UP ONLY)**.
- Press "START" button. The display will show "FILL DUTY TANK" and the Green Power LED will start flashing and a beeping sound will start.
- Open the Sink Lid fully and fill the Duty Tank by slowly pouring clean solvent directly into the drain hole at the bottom of the Wash Sink. Five Gal (19L) of solvent is required. The beeping sound and flashing of the Green LED will continue until enough solvent has been added. Then the sound and the flashing will stop and the Display will read "DUTY TANK FULL".
- After a 10 second delay, the beeping sound and the flashing of the Green LED will start again and the Display will read "FILL CLEAN TANK".
- Open the hinged lid of the Clean Tank and slowly, carefully pour clean solvent into the tank until the beeping stops - approximately 5 Gal (19L) is required. The Display will then read "CLEAN TANK FULL" and the liquid level showing in the sight gage should be close to the line ("5 Gallon - 19 Litres").
- After about 10 seconds, the Display will change to:

  "READY SP =240°C".
  START IN 2H OM

  The unit will now wait for a pre-set amount of accumulated usage time (which is intially set to 2 hours) and then automatically activate the recycling operation. This "AUTO START" time period is recorded by the computer and is the amount of cleaning time used by an operator as measured by an air sensor attached to the Wash Pump line. This setting can be decreased if exceptionally dirty parts need to be cleaned or increased to accomodate light-duty cleaning. To change the AUTO START setting, see the SETUP MODE section.

- From READY mode or STAND-BY mode, recycling may be started manually at any time by pressing the START button. This will over-ride the “AUTO START” setting only for this cycle.
- If “AUTO START” time is set to ZERO “0” hour, the unit can only be started by pressing the START button.

CAUTION: Although changes to some of the unit’s operating parameters can be made at any time by pressing “STOP” and entering SETUP MODE, such changes could cause serious problems if done in the middle of a recycling operation. Therfore, it is highly recommended that such changes only be made when the unit is in “READY” mode (ie: just before or just after a recycling operation).

7. TOPPING OFF THE CLEAN SOLVENT TANK

From time to time, it becomes necessary to add solvent to the CLEAN SOLVENT TANK because of loss by evaporation, drag-off and waste removal. When the lower level sensor in the CLEAN SOLVENT TANK detects the low solvent level, the Display will read “FILL CLEAN TANK” , an alarm will sound and the Green Power LED will start flashing. Add solvent to the Clean Solvent Tank as follows:

- Make sure that unit is in READY mode - the display will read “READY SP =240°C” and the Green Power LED will **NOT** be flashing.
- By pulling the Unlock Handle, remove the Access Door.
- Open the hinged lid of the Clean Tank and slowly, carefully pour clean solvent into the tank until the alarm and the flashing Green LED stop - approximately 2-3 Gal (8-12 Litres) of clean solvent are required. The Display will then read “CLEAN TANK FULL” and the liquid level showing in the sight gage should be close to the line (“5 Gallon - 19 Litres”).

CAUTION: Do Not add more than 2-3 GAL (8-12 LITRES) to the CLEAN SOLVENT TANK, or it may overflow during NIGHT MODE.

OPERATION

After the INITIAL SETUP, the unit is ready for parts cleaning and automatic recycling. The AUTO START function will start the recycling operation after a pre-set amount of cleaning time (the factory setiing is 2 hours). This setting can be changed or AUTO START can be disabled and changed to Manual Start in SETUP MODE. The Set Point Temperature and Drain Temperature can also be adjusted depending on the type and amount of solvent used.

PARTS CLEANING

- The amount of solvent used for parts cleaning is controlled first by the Solvent Control Valves, one for the Flow-through Brush and the other for the Spigot. Using the handles, each valve can be independently turned fully or partially open.
- For precise, hands free control of solvent, press the foot pedal.
- For a timer-controlled flow of solvent, turn the timer knob. The flow duration depends on how far the timer knob is turned - the range is 0 to 15 minutes.
- A Strainer Disc and Filter Basket located at the bottom of the Wash Sink collect most of the solids in the dirty solvent; the rest goes through the sink’s drain into the “DUTY TANK” which is located under the sink.
- A Three Stage filtering system protects the Duty Tank: 1) a Strainer Disc (perforated disk); 2) a removable, fine-mesh Filter Basket and 3) another Screen inside the top of the Duty Tank. The filters should all be checked **daily** and cleaned if necessary.

SOLVENT RECYCLING FUNCTION;

This unit is equipped with a built-in solvent recycler which is capable of recycling the contaminated solvent during the working day as well as after hours.

1. **DAY MODE solvent recycling**:

   The recycling during the working day is called Day Mode.

- The purpose of the Day Mode is to maintain solvent in relatively clean conditions throughout the working day for utmost cleaning efficiency.
- Day Mode is automatically started after cleaning operation accumulates to the pre-set number of hours. Only the time period when the wash pump is activated to feed solvent to Wash Sink is counted as the cleaning operation time. Therefore, the factory default setting of 2 hours would cover much longer cleaning period in general.
- This Day Mode may also be started manually by pressing START button when display shows READY. In this case, Auto-start function is over-ridden for this cycle only.
- The Day Mode function is independent of the Parts Washer part of the unit and would not interfere with cleaning operation.

2. AFTER HOURS solvent recycling:

The recycling after hours is called Night Mode, which may be started only by pressing the START button continuously for more than 3 seconds. Three short beeps and one long beep will be heard before starting the Night Mode.

- The purpose of the Night Mode is to recycle all contaminated solvent completely during the nigh so that the cleaning operation can be started with clean solvent in the next morning.
- The Night Mode function is designed to remove all contaminated solvent from Duty Tank and therefore no cleaning operation is recommended during the Night Mode recycling.
- The Duty Tank is completely emptied, rinsed with a small amount of clean solvent and then filled up with clean solvent during the Night Mode to be ready next morning..
- If the recycler is still in Day Mode operation at the end of working day, presses STOP button. After display returns to READY mode, press START button for more than 3 seconds.

IMPORTANT DAILY MAITNTENANCE: TO PREVENT AN OVERFLOW OF OILY RESIDUE, CHECK RESIDUE CONTAINER AND DISPOSE OF RESIDUE REGULARLY ACCORDING TO LOCAL REGULATIONS. IN ADDITION, CHECK IF THE RESIDUE IS THIN ENOUGH TO DRAIN PROPERLY BY FOLLOWING STEP 1 OF THE MANUAL DRAIN PROCEDURE BELOW. COMPLETE STEPS 2 AND 3 IF THE RESIDUE IS TOO THICK.

RESIDUE VISCOSITY CHECK

During the recycling process, the residue is automatically drained into the residue container. If the residue is too thick (viscous), it may not drain properly. There are two solutiions:

1. Increase the Residue Drain Temperature in the SETUP program (see SETUP MODE section). Keep in mind that the odor of the residue will increase as the Residue Temperature increases.
2. Perform a DUTY TANK MANUAL DRAIN of the thick residue using the procedure below.

DUTY TANK MANUAL DRAIN PROCEDURE

1. First check to make sure that the residue is thick enough to require manual draining by moving the Drain Valve Lever to the OPEN position (vertical) for 1 second and then closing it. If thin liquid comes out in significant quantities, the residue is thin and manual draining is not required.

2. If little or no residue comes out, the residue is probably thick and needs to be loosened up and partially drained. Push and hold the black button for 3 seconds. This sends air through the residue to loosen it.

3. Close the valve as soon as as the residue becomes thin and free flowing.

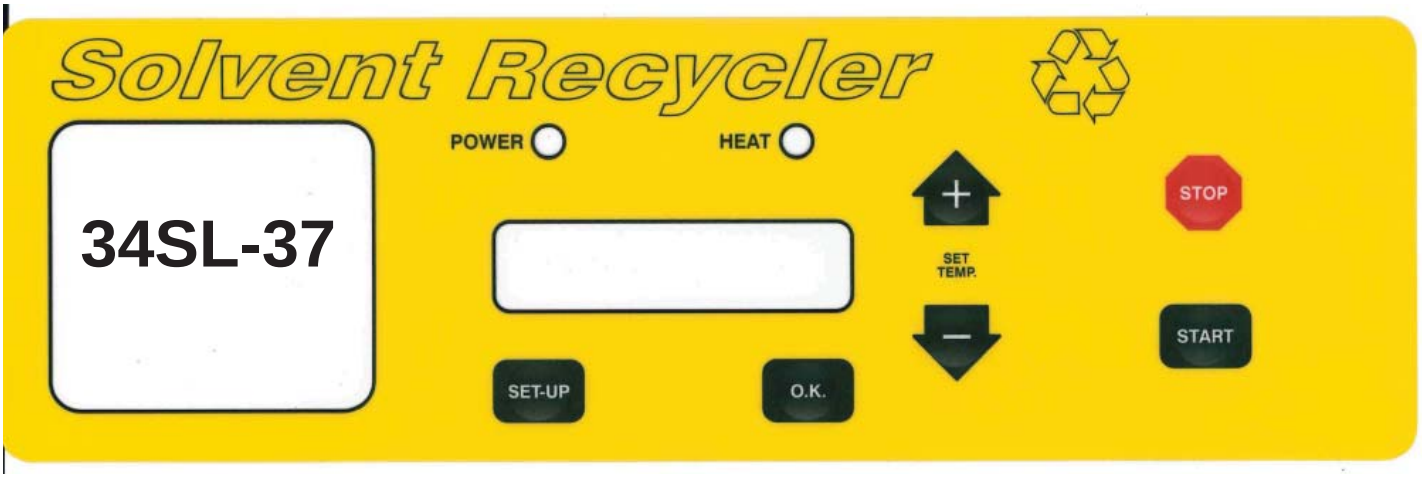
CAUTION: This procedure is intended to remove the very thick material in the residue only and should NOT be used to drain the thin (non-viscous) residue from the Duty Tank. Draining all of the residue through the Manual Drain will overflow the residue container.

CONTROL PANEL KEYPAD

- Used to control all user-accessible functions.
- Keep free of paint, solvent, dirt etc.
- To prevent damge to the Keypad, do not use tools or other hard objects to push the buttons.

DIGITAL DISPLAY

- LCD displays 32-characters in 2 lines. Various messages are displayed regarding the status of the operation including temperatures, set points, current cycle stages etc. Error messages that can be used to troubleshoot a problem are also displayed here.
- To change the temperature units (°C vs °F), press and hold the “+” and “-” buttons until the display switches to the other units (about 2 seconds).



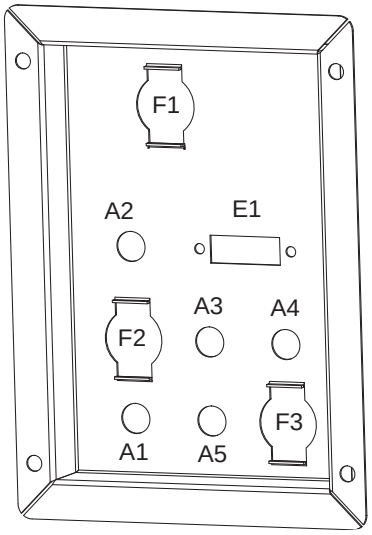
OPERATING PARAMETERS

The computer is pre-set at the factory for average conditions of use. To change the SET POINT, AUTO START or DRAIN TEMP, enter USER SETUP MODE.

USER SETUP MODE

We recommend that only personnel with expert understanding of the unit adjust the settings. Adjust set tings only when the display reads: “READY S.P. = xxx°C”. To start SETUP, press and hold SETUP key and press START. Use + or - key to adjust setting. To store the new setting in memory and move to the next parameter, press OK.

STEP	DISPLAY	KEY TO ADJUST	KEY TO ACCEPT	DESCRIPTION
1	SET-PT = 240°C	+ OR -	OK	The “SET-PT” or SET POINT is the temperature the Distillation Tank will reach to boil the dirty solvent. Lower the Set Point if the Boiling Point of the solvent (as determined from a suitable source such as an MSDS) is less than 240°C. **CAUTION: If the SET POINT is too high, the Distillation Tank Lid may leak or blow off.**
2	RET. TIME = 1H00M	+ OO -	OK	Adjustment of refilling time. Default time is set to 1 hour at factory. It is recommended not to change this setting unless advised by a Service Advisor.
3	AUTO START = 2H	+ OR -	OK	Cumulative usage time of parts washer before automatic recycling begins. Default Auto Start Time is set to 2 hours at factory. Adjust to 0 hour if manual start by pressing START button is desired.
4	DRAIN TEMP = 125°C	+ OR -	OK	Default Drain Temperature of Residue is 125°C (257°F); this is adequate for most operations. If there is too much odor during draining, lower the temp; if the waste material is too thick (viscous), increase the temp.
5	STANDBY SP = 240°C or READY SP = 240°C	NA		Indicates unit is ready and Set Point is set to 240°C



CONNECTION PANEL

A1	MAIN AIR IN
A2	NOT USED
A3	AIR OUT TO DUTY TANK (MIXING)
A4	NOT USED
A5	AIR OUT - TRANSFER PUMP - CLEAN TO DUTY
E1	ELECTRIC CABLE CONNECTOR
F1	CLEAN SOLVENT OUTLET CONNECTOR
F2	NOT USED
F3	DIRTY SOLVENT INLET CONNECTOR

HOW TO ACCESS DIFFERENT MODES

The following modes of operation are available for user convenience.

NEW UNIT SETUP Mode
When the unit is connected to electric power supply for the first time.
Display and beeping sound will guide user for the new unit set-up procedures. Refer to 6. Initial Setup on page 6 for details.

RECYCLING Mode (= Day Mode)
“Day Mode may be started automatically by pre-set Cleaning Operation Hours (Factory default is 2 hours), or may be started manually by pressing START button. Day Mode may be stopped by pressing STOP button at any time. “

Pressing START button will resume the operation from where it was stopped. Refer to 1. Day Mode on page 8 for details.

AFTER HOURS Mode (= Night Mode)
Night Mode may be started by pressing START button for 3 seconds or longer. Three short beeps followed by a long beep will be heard and Night Mode process will start.

Night Mode may be stopped by pressing STOP button at any time.Pressing START button will resume the operation from where it was stopped. Refer to 2. After Hours Solvent Recycling on page 8 for details.

USER SETUP Mode
All key parameters are set at the factory to the most suitable values for most operations. However, it may be necessary to change some of the user settable parameters.

USER SETUP Mode may be accessed by first holding the SET-UP button and then pressing the START button. The LCD will show SET-UP MODE in the first line. Press the SET-UP button again to make the first adjustment. Refer to USER SET-UP MODE on page 10 for more details.

TEST Mode
If a malfunction is suspected by the user, TEST Mode is provided to verify some key functions.To access TEST Mode, press and hold the OK button then the Minus (-) button. A series of tests will be conducted automatically. If an error condition occurs, the tests will stop and the display will show the corresponding message. If no error condition occurs, the tests will continue until the end of the test cycle (about 10 minutes). To exit from TEST mode press the STOP button.

CLEANING Mode
After some use, there may be a build up of debris in the Boiler Tank. CLEANING Mode is availble to clear this debris. From READY mode, access Cleaning Mode by pressing and holding the Plus (+) button and then pressing the START Button. The LCD will show MANUAL ACTIVATE indicating MANUAL mode is in effect. Follow the instructions displayed for effective cleaning of the Boiler Tank.

LIST OF ALL MESSAGES (includes Error Messages, Status Messages and Troubleshooting Information etc.)

Mode	LCD DISPLAY		EXPLANATION AND REMARKS
	1ST LINE	2ND LINE	
New unit set-up	NEW UNIT SET-UP	START TO BEGIN	*First set-up of new unit with clean solvent.*
	PRIMING: PLEASE	FILL DUTY TANK	*Fill Dirty Tank with 5 Gallons (20L) of new solvent.*
	PRIMING:	DUTY TANK FULL	*Duty Tank is filled with 5 Gallons (20L) of new solvent.*
	PRIMING: PLEASE	FILL CLEAN TANK	*Fill Clean Tank with 5 Gallons (20L) of new solvent.*
	PRIMING:	CLEAN TANK FULL	*Clean Tank is filled with 5 Gallons (20L) of new solvent.*
Error and status messages	34S v7.01		*Software version shown at power-up of computer.*
	ENGAGING FRESH	CYCLE	*Pressing OK and START starts recycling without recalling memory*
	READY S.P.= 240C	START IN 2H 0M	*READY for Day-mode recycling in 2 hours of cleaning operation or awaits key input.*
	COND THERMOSTAT		*Condenser Thermostat is open at the beginning and START is halted. Repair or replace the thermostat.*
	LOW AIR PRESSURE		*Air pressure is too low and process has been halted.*
	AIR PRESSURE OK		*Air pressure is restored and process is resumed..*
	RECYCLING MODE	VACUUM OK	*Vacuum was restored and process resumes. (Vacuum version only.)*
	HOLD - TOO HOT		*Filling of Boiler Tank was halted as temperature of Boiler Tank was higher than Ready temperature of 80ºC.*
	BOILING TIME-OUT		*Boiling has not been started within time limit and process has been terminated.*
	CONDENSER	OVER-HEAT	*Condenser Thermo-stat is open indication over-heat. Process is halted. Clean condenser or check Fan.*
	CHECK FAN		*If over-heat lasts more than 10 minutes, the process is halted.*
	CHECK BOILER	TANK SENSOR	*Check Thermo-couple wires between computer and Boiler Tank bottom. Repair or replace as required.*
	CHECK CONDENSER	SENSOR	*Check Thermo-couple wires between computer and Condenser Inlet Tube Repair or replace as required.*
	CHECK BOILER	FLOAT SENSOR	*Check Level Sensor Float in Boiler Tank.*
	CHECK CLEAN	TANK SENSOR	*Check Level Sensor Float in Clean Tank.*
	CHECK DUTY	TANK SENSOR	*Check Level Sensor Float in Duty Tank.*
	CHECK FOR LEAKY	DRAIN VALVE	*Drain Valve may be leaking. Repair or replace Drain Valve.*
	SOLVENT LOW	FILL CLEAN TANK	*Add 2 gallons (8 L) of new solvent to Clean Tank.*
	TIME-OUT OCCURED		*Recycling was not completed in 5 hours.*
	WATCHDOG RESET		*External power irregularity. Stop and restart.*
	DRAIN FULL TANK	EMPTY DEBR FRST	*Boiler Tank is full.*
	RESET OCCURED		*Process was halted by reset during recycling.*
	LO VOLTAGE RESET		*Software problem Stop, restart*
	DISCONNECT	POWER	*Power board failure. Disconnect power source without delay.*
	ILLEGAL ADDRESS		*Software problem Stop, restart*
	ILLEGAL OPCODE		*Software problem Stop, restart*
	CHECK SUM		*memory problem*
	DEFAULT RESTORED		*Factory default setting was restored.*
	MEMORY FAIL		*Software problem Stop, restart*

Mode	LCD DISPLAY		EXPLANATION AND REMARKS
	1ST LINE	2ND LINE	
Day Mode Recycling Messages	RECYCLING MODE		*Now starting Day-mode recycling.*
	RECYCLING MODE	FILL BOILER TANK	*Filling Boiler Tank with dirty solvent from Duty Tank.*
	RECYCLING MODE	CLOSE FILL VALVE	*Closing Valve to fill Boiler Tank.*
	RECYCLING MODE	FILL DUTY TANK	*Filling up Duty Tank to full level with clean solvent.*
	RECYCLING MODE	HEATER ON	*Heater has been turned on.*
	RECYCLING MODE	TANK =XXXºC	*Boiler Tank temperature, Vapor temperature Set-point temperature and balance of Refilling Cycles time are displayed alternatively in every 5 seconds*
	RECYCLING MODE	VAPOR EX.=XXXºC	
	RECYCLING MODE	SET-PT = 240ºC	
	RECYCLING MODE	REF.TIME= 1H 30M	
	RECYCLING MODE	FILL BOILER TANK	*Boiler Tank is re-filled during Refill Cycles.*
	RECYCLING MODE	DRAIN TEMP=125ºC	*Drain temperature is set to 125ºC for 5 seconds..*
	RECYCLING MODE	COOLING T1-xxxºC	*Boiler temperature is shown while cooling to DRAIN temperature, for 5 seconds.*
	RECYCLING MODE	COOLING T2=XXXºC	*Vapor temperature is shown while cooling to DRAIN temperature, for 5 seconds.*
	COOLING T1-xxxºC		*Boiler temperature while cooling to READY temperature.*
After Hours (Night Mode) Messages	AFTER HOURS MODE		*After Hours Mode (Night Mode) recycling is starting.*
	AFTER HOURS MODE	FILL BOILER TANK	*Filling Boiler Tank with dirty solvent from Duty Tank.*
	AFTER HOURS MODE	HEATER ON	*Heater has been turned on.*
	AFTER HOURS MODE	TANK = xxxºC	*Boiler Tank temperature, Vapor temperature and Set-point temperature are displayed alternatively in every 5 seconds*
	AFTER HOURS MODE	VAPOR EX.=xxxºC	
	AFTER HOURS MODE	SET-PT =240ºC	
	AFTER HOURS MODE	RINSE DUTY TANK	*Duty Tank is rinsed with small amount of clean solvent.*
	AFTER HOURS MODE	FILL DUTY TANK	*Duty Tank is topped-up with solvent from Clean Tank.*
	AFTER HOURS MODE	COOLING T1-xxxºC	*Shows Boiler temperature while awaiting DRAIN temperature, for 5 seconds.*
	AFTER HOURS MODE	COOLING T2=XXXºC	*Shows Vapor temperature while awaiting DRAIN temperature, for 5 seconds.*
	AFTER HOURS MODE	DRAINING DEBRIS	*Drain Valve is open and draining Debris.*
	COOLING T1=xxxºC		*Boiler temperature while cooling to READY temperature.*
User Manu	SET-UP MODE		*User set-up mode. Press SET-UP botany to start 1st menu.*
	SET-UP MODE	SET-PT =240ºC	*Press OK or adjust Set-point temperature (75º-240ºCby 1ºC)*
	SET-UP MODE	REF.TIME=1H 30M	*Press OK, or adjust Refill Cycle Time as required.*
	SET-UP MODE	AUTO-START=2H	*Press OK, or adjust Auto. Start Cleaning time as required.*
	SET-UP MODE	DRAIN TEMP=125ºC	*Press OK, or adjust Debris Drain temperature as required.*

Mode	LCD DISPLAY		EXPLANATION AND REMARKS
	1ST LINE	2ND LINE	
Test Mode Messages	TEST MODE	34S v7.01	*Starting test of software version 7.01*
	T1=xxxºC	T2=xxxºC	*Boiler temperature is xxxºC and Vapor temperature is xxxC*
	TEST MODE	FAN ON	*Fan is on. Feel the wind to confirm.*
	TEST MODE	BOILER NOT FULL	*Shows status of Boiler Tank. Display would not ne correct if Boiler Tank level sensor is not working properly.*
	TEST MODE	BOILER TANK FULL	
	CLEAN TANK	FULL	*Shows status of Clean Tank. Display would not ne correct if Clean Tank Upper level sensor is not working properly.*
	CLEAN TANK	NOT FULL	
	TEST MODE	I/O TEST	*Testing function of Key Buttons. Do not touch any button.*
	TEST MODE	KEY SWITCH STUCK	*A button is stuck in the pressed position. Repair or replace.*
	TEST MODE	HEATER TEST	*Heater is turned on.*
	CHECK FOR OPEN	HEATER LOOP	*Heater has open circuit and not working. Repair or replace.*
	TEST MODE	HEATER TEST OK	*Heater is working properly.*
Cleaning Mode	CLEANING MODE	DRAIN CLOSED	*Starting Cleaning Mode and drain valve is closed.*
	CLEANING MODE	FILLING TANK	*Filling Boiler Tank with 2 L of solvent from Duty Tank.*
	CLEANING MODE	HEATER ON	*Heater is turned on to warm up solvent to about 60ºC.*
	CLEANING MODE	READY TO CLEAN	*Solvent reached 60ºC and ready to start cleaning work..*
	CLEANING MODE	PUSH OK TO DRAIN	*After cleaning, press OK button to drain dirty solvent.*
	CLEANING MODE	DRAINING DEBRIS	*Dirty solvent is being drained from Drain Valve.*
Manual Mode	MANUAL ACTIVATE	1:FILLING PUMP	*Press START to activate SL#1*
	MANUAL ACTIVATE	2:DRAIN CLOSING	*Press START to activate SL#2*
	MANUAL ACTIVATE	3:DRAIN OPENING	*Press START to activate SL#3*
	MANUAL ACTIVATE	4:TRANSFER PUMP1	*Press START to activate SL#4*
	DRAINING HALTED	POSSIBLE OVERFLO	*Boiler is full when trying open grain valve.*

MAINTENANCE

CAUTION: DISCONNECT FROM POWER BEFORE PERFORMING MAINTENANCE

REMOVING THE RECYCLER and SAFETY COVER

- Disconnect power cord from source
- Remove the Access Door.
- Disconnect all of the hoses and lines from the Connection Panel. CAUTION: RE-CONNECT CORRECLY - FOLLOW THE DIAGRAM IF NECESSARY.
- Using the Handle, carefully and slowly, pull the Solvent Recycler out of the Base Cabinet.
- Remove the Safety Cover by first removing one screw from the front clip and then the two screws on the back of the Safety Cover..

CLEANING THE CONDENSER

To get access to the condenser, remove the recycler and safety cover (as described above). Clean the condenser using an air pencil.

To prevent overheating of the condenser due to the accumulation of dust, the condenser should be vacuumed regularly (every one to three months is recommended depending on usage and operating environment). An overheat situation may cause an error message such as “CONDSR OVER-HEAT” or “CHECK FAN”.

DISTILLATION TANK MAINTENANCE

To get access to the Distillation Tank, remove the Recycler and Safety Cover (as described above) and then remove the Tank Lid completely.

Waste material will eventually build up on the Float Ball, protector plate and the inside surface of the Lid as well as the top sealing surface of the Tank. It is important to keep all of these components clean for proper functioning of the machine. The Float Ball in particular must be keep clean so that it can move freely. A recommended frequency of inspection is one to threee months, dpending on usage and operating environment.

REPLACEMENT OF LID GASKET

A worn or damaged Gasket can cause leaking. To replace the Gasket, first remove the Recycler and Lid as described above and then remove the Gasket with a small flat-tip screw driver. If necessary, clean the groove and fit the new gasket firmly and evenly into the groove.

OTHER REGULAR MAINTENANCE

Depending on the amount of use and the nature of the material removed during parts washing, it may become necesary to remove a buildup of residue from the inside of the Duty Tank. To check this, remove the strainer and Filter Basket from the sink drain and look inside the Duty Tank with a light. If there is material stuck to the bottom of the Tank, the Tank should be disconnected, removed and cleaned. To minimize the work involved this should be done when the Recycler has to be removed for other maintenance.

REPLACEMENT PARTS

FLOW-THROUGH BRUSH	144-399
AIR BLOW GUN ASSEMBLY	280-2400
FLO-THROUGH SCRAPER TOOL	280-2600
DEBRIS CONTAINER	3000-9010
LID SEAL GASKET, NEOPRENE	300-2150N
SPIGOT	CALL FOR PART NO.

Full Product Warranty

These Uni-ram products have been engineered and manufactured to high performance standards. Each unit has been subjected to detailed factory testing before shipment.

This product comes with a 1-year warranty on parts and labor and a warranty for the 2nd and 3rd years on parts only, excluding in both cases, consumable parts such as the flow-through brush, flexible spigot, lid gasket and the optiional filters. Uni-ram Corporation reserves the right to repair or replace the unit, free of charge, to the original purchaser if a part is found to be defective in material or workmanship as determined by factory service personnel. The items listed below under “Conditions of Warranty” as consumables are not covered.

Uni-ram reserves the right to direct the customer to ship the unit collect to the Uni-ram factory or to an approved Service Center for repair using the Uni-ram Return Goods Procedure or to repair the unit on-site. To prevent damage in transport, the purchaser must ship the unit in the original packaging or use alternate adequate packaging. All units must be shipped clean and free of solvent.

Conditions of Warranty:
As Uni-ram Corporation has no control over the working conditions or circumstances under which the purchaser stores, handles or uses the product, Uni-ram makes no warranty or claim, either expressed or implied with respect to this product’s fitness for any purpose or the result to be obtained from its use. This condition applies to the sale of all products and no representative or distributor of Uni-ram Corporation has the authority to waive or change these conditions.

This warranty applies only to the original purchaser and does not apply if the unit has been misused, overloaded, neglected, altered or used for any purpose other than those specified in the operating and installation instructions. Deterioration due to normal wear is not covered by this warranty. Damage due to accident, transportation, fire, floods or acts of God is also not covered. Units whose serial numbers have been altered or removed are not covered. The warranty is invalid if unauthorized abrasives are used in this unit. Unauthorized attempts at self-repair or alterations by the owner also invalidate this warranty. Interior or exterior finishes are not covered by this warranty.

Consumable Items are not covered by this warranty.

This warranty replaces all other warranties expressed or implied by statute or otherwise.

To make a claim, call Uni-ram Service at 1-800-417-9133 and quote the serial number of the unit.

SERIAL NUMBER: _____

PURCHASE DATE: _____

PURCHASED FROM: _____

CUSTOMER / WARRANTY INFORMATION SHEET

This Information Sheet is provided as a tool to provide the Customer, Distributor and the Manufacturer with the necessary information for UNI-RAM Corporation to provide the utmost in customer service and warranty services, if needed.
This Information Sheet MUST be filled out completely by the Customer and/or Distributor and sent in to UNI-RAM Corp. upon delivery for unit to be registered and covered under the UNI-RAM Manufacturer's Warranty Program. THANK YOU

CUSTOMER COPY
Retain in Owners Manual for Future Reference

Customer:_____
Location of Unit:_____ City:_____St:_____Zip:_____
Purchased from:_____
Address:_____ City:_____St:_____Zip:_____

Model Number of Unit:_____ (34SL/37" – 34SL/42", etc)
Serial Number of 34Sl :_____Serial Number of R4L:_____
(Located on right side under sink) (Located inside residue door of R4L)

Date Purchased:_____/_____/_____.
(Keep this top copy in Owners Manual for future reference)

(Fill out completely, cut and mail bottom copy to UNI-RAM CORP)
MANUFACTURER'S COPY

Customer :_____

Address:_____ City: _____ St._____ Zip_____

Purchased From:_____

Address: _____City: _____ St._____Zip:_____

Model Number of Unit:_____(34SL/37 - 34SL/42,etc)

Serial Number of 34SL:_____ Serial Number of R4L:_____

Date Purchased:_____/_____/_____ Date Delivered:_____/_____/_____

Was unit delivered and set properly:_____

Was operation of unit fully explained to you:_____

Comments: _____
_____

For Warranty to become effective, this tear off must be filled out and sent in to:
Uni-ram Corporation 381 Bentley St. Markham, ON. Canada L3R972
Attention: Warranty Registration Dept.